

REMARKS

By the present Amendment, claims 1-24 have been canceled without prejudice or disclaimer and new claims 25-30 have been added. All the claims now of record relate to a ballpoint pen using a defined water-based ink composition with sole independent claim 25 defining the composition as comprising at least a colorant, water and 0.1 to 30 % by weight of a nonionic high molecular surfactant having an alkylene oxide chain as a hydrophilic group and having an average molecular weight of 3000 to 200,000. Dependent claims 26-30 relate to other aspects of the defined composition which were formerly encompassed by original claims 2-4.

The cancellation of claims relating to the composition, *per se*, and other former aspects of the invention is believed to render moot the rejections under 35 U.S.C. §102(b) based on Bui et al., U.S. Patent No. 5,554,212, and Nakanishi et al., U.S. Patent No. 5,412,021. Before addressing the last remaining rejection set forth in the Official Action, namely the rejection under 35 U.S.C. §103(a) based on the combination of Bui et al. and Murakami et al., U.S. Patent No. 4,793,860, a further discussion of the presently claimed invention is in order.

As noted above, the presently claimed invention relates to a ballpoint pen using a water-based ink composition comprising at least a colorant, water and a defined amount of a nonionic high molecular surfactant having an alkaline oxide chain as a hydrophilic group and having an average molecular weight of 3,000 to 200,000. The Examples and Comparative Examples provided in the specification demonstrate the important advantages which may be obtained in accordance with the present invention. In particular, Examples 1, 3, 5 and 7 all relate to ink compositions for ballpoint pens and can be contrasted with Comparative Examples 1, 3, 5 and 7, with the results of various evaluations being set forth in Table 1 on

page 43 of the English translation of the application that was provided on July 19, 2004. As may be seen from these Examples and Comparative Examples, when following the teachings of the present invention, one can obtain good storing property, no feathering and good writing feel. In contrast, when a styrene acrylic acid resin ammonium salt is substituted for the nonionic high molecular surfactant as in Comparative Example 1; refined water is substituted for the surfactant as in Comparative Example 3; a styrene acrylic acid resin is substituted for the surfactant as in Comparative Example 5; or a low molecular weight material is substituted for the surfactant as in Comparative Example 7, one or more of the storing property, non-feather property and writing feel is adversely affected.

With the claims now of record and the evidence provided in the specification in mind, those of ordinary skill in the art will recognize that the rejection based on the combination of Bui et al. and Murakami et al. cannot stand. As conceded by the Examiner in the Official Action, Bui et al. does not teach writing instruments. Instead, the patent relates to a water-fast high gloss hyperthermogelling aqueous phase change ink that is designed for an ink jet printer. The ink is specifically composed to gel when its temperature is increased to its thermo-inversion point or when the concentration of the hyperthermogelling component is increased by evaporation or substrate absorption of water from the ink. In order to achieve the hyperthermogelling activity, a hyperthermogelling component is used which is a nonionic surfactant, such as an ethylene oxide propylene oxide block copolymer surfactant.

From the express teachings of Bui et al., it is without question that the described ink is designed for ink jet printers, not ballpoint pens. It is only because of the specific hyperthermogelling activity of the ink that the patent teachings the use of

the nonionic surfactant as a hyperthermogelling component. As such, there is absolutely no reason why those of ordinary skill in the art would be motivated to use such an ink in a ballpoint pen.

Murakami et al. relates to an aqueous ink composition comprising a dye, a polyhydric alcohol and water which can be used as an ink for writing instruments, such as a ballpoint pen, marker, fountain pen or for recording apparatus including a pen blotter and an ink-jet printer. In the passage beginning at column 9, line 54, the patent further indicates that various additives, such as a water-soluble preservative, an anti-mold agent, a surfactant, and a pH adjusting agent can be added.

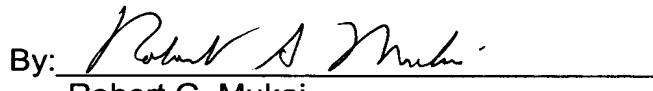
Absent an improper resort to applicants' own specification, those of ordinary skill in the art would not attempt to combine the teachings of Bui et al. and Murakami et al. in the manner suggested in the Official Action. Bui et al. specifically designs an ink for ink jet printing and uses a nonionic surfactant as a hyperthermogelling component which has a utility that is specifically designed for ink jet printing. In contrast, Murakami et al. does not specifically teach a nonionic high molecular surfactant as defined in the claims of record and clearly does not recognize the advantages which can be obtained therefrom in the context of a ballpoint pen as demonstrated in the evidence which has been provided in the specification. Thus, just because Murakami et al. indicates that the disclosed ink composition can be used for various purposes, does not mean that those of ordinary skill in the art would use a thermogelling aqueous phase change ink of Bui et al. that is designed for an ink jet printer, not a writing instrument. Therefore, it is without question that based on the claims and evidence of record, the combination of Bui et al. and Murakami et al. cannot be properly relied on to reject the presently claimed invention.

For all of the reasons set forth above, applicants respectfully request reconsideration and allowance of the present application.

Should the Examiner have any questions concerning the subject application, the Examiner is invited to contact the undersigned attorney at the number provided below.

Respectfully submitted,

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